

# Discussion Problems

## Step 3: Divide by 10

### National Curriculum Objectives:

Mathematics Year 4: (4C6a) [Recall multiplication and division facts for multiplication tables up to  \$12 \times 12\$](#)

Mathematics Year 4: (4C6b) [Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers](#)

### About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 4 Multiplication and Division](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Divide by 10

1. Explore which numbers Dina and Umar could have by following these clues:



Dina



Umar



Niamh

- Umar's number is an even whole number which is 10 times smaller than Dina's.
- Dina's number is an even number between 600 and 700.
- Niamh has divided Dina's number by 10 and got the answer 60, when she rounded it to the nearest 10.

Is there more than one possibility?

DP

2. Find your way through the maze by following a path where the answer is less than 50 each time.

	$260 \div 10$	cm in 350mm	$340 \div 10$	cm in 510mm	$640 \div 10$	cm in 960mm	
Start	cm in 420mm	$780 \div 10$	cm in 290mm	$450 \div 10$	cm in 190mm	$180 \div 10$	
	$410 \div 10$	cm in 620mm	$850 \div 10$	cm in 1010mm	$540 \div 10$	cm in 470mm	Finish
	cm in 330mm	$170 \div 10$	cm in 140mm	$340 \div 10$	cm in 410mm	$250 \div 10$	

Explore different paths you can take through the maze.

DP

# Divide by 10

1. Explore which numbers Dina and Umar could have by following these clues:



Dina



Umar



Niamh

- Umar's number is an even whole number which is 10 times smaller than Dina's.
- Dina's number is an even number between 600 and 700.
- Niamh has divided Dina's number by 10 and got the answer 60, when she rounded it to the nearest 10.

Is there more than one possibility?

Umar's number could be 60, 61, 62, 63 or 64.

Dina's number could be 600, 610, 620, 630 or 640.

DP

2. Find your way through the maze by following a path where the answer is less than 50 each time.

	$260 \div 10$	cm in 350mm	$340 \div 10$	cm in 510mm	$640 \div 10$	cm in 960mm		
Start								
		cm in 420mm	$780 \div 10$	cm in 290mm	$450 \div 10$	cm in 190mm	$180 \div 10$	
		$410 \div 10$	cm in 620mm	$850 \div 10$	cm in 1010mm	$540 \div 10$	cm in 470mm	Finish
		cm in 330mm	$170 \div 10$	cm in 140mm	$340 \div 10$	cm in 410mm	$250 \div 10$	

Explore different paths you can take through the maze.

Various answers, for example: see above.

DP